

**Notice of Allowability**

Application No.

10/776,154

Examiner

Helene Tayong

Applicant(s)

GATER, CHRISTIAN

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 5/25/07.
2. ☒ The allowed claim(s) is/are 1-41.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application
- ☒ Interview Summary (PTO-413), Paper No./Mail Date 7/30/07.
- ☒ Examiner's Amendment/Comment
- ☒ Examiner's Statement of Reasons for Allowance
- ☐ Other \_\_\_\_\_

### **DETAILED ACTION**

1. Acknowledgement is made of the amendment received on 5/25/07.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Carmen C. Cook on 7/30/07.

The application has been amended as follows:

1. In the abstract:

In line 6, insert - - at -- between "resetting the voltage ramp signal" and "a first delay"; and

In line 7, insert - - at - -between "regenerating the voltage ramp signal" and "a first time period".

2. In claims:

(1) In claim 1, lines 8-9, insert - -at-- between "the first voltage" and "a first delay";

(2) In claim 1, lines 10-11, insert - -at -- between "the second voltage" and "a first time period";

(3) In claim 1, line 12, change "the voltage value" to - - a voltage value;

Art Unit: 2611

- (4) In claim 2, lines 1-2, change "the pulse separation" to - - each of the first and second pulse separation - -;
- (5) In claim 2, line 2, change "the time duration" to - - a time duration - -;
- (6) In claim 6, line 3, insert - - wherein the Vdd voltage is a power supply voltage - - after "the Vdd voltage of the data pulses" ;
- (7) In claim 7, line 3, insert - - wherein the Vss voltage is a ground voltage - - after "the Vss voltage of the data pulses" ;
- (8) In claim 13, lines 2-3, insert - - towards the second voltage at - - between "the voltage ramp signal" and "a first time period " ;
- (9) In claim 13, line 4, insert - - towards the second voltage- - between "the voltage ramp signal" and "at the trailing edge of each data pulse";
- (10) In claim 13, line 5, insert - - at - - between " each data pulse or" and " a second delay";
- (11) In claim 14, lines 2-3, insert - - towards the second voltage at - - between " the voltage ramp signal" and " a first time period" ;
- (12) In claim 14, line 4, insert - - towards the second voltage - - between "the voltage ramp signal" and "after the resetting of the voltage ramp signal";
- (13) In claim 14, lines 5-6, change "comprising a zero time period" to - -being of zero time duration - -;
- (14) In claim 16, lines 10-11, insert - -at - - between "the first voltage" and "a first delay"- -;

(15) In claim 16, lines 12-13, insert - - at - - between “ the second voltage “ and “a first time period”;

(16) In claim 26, line 3, change “the Vdd voltage” to -- a Vdd voltage, wherein the Vss voltage is a ground voltage and the Vdd is a power supply voltage- -;

(17) In claim 27, line 2, change “ a Vdd voltage” to - - the Vdd voltage- -;

(18) In claim 27, line 3, change “ the Vss voltage” to - - a Vss voltage, wherein Vdd voltage is a power supply voltage and the Vss voltage is a ground voltage - -;

(19) In claim 29, line 3, insert - - wherein the Vdd voltage is a power supply voltage- - after “greater than the first supply voltage”; and

(20) In claim 30, line 3, insert - - wherein the Vss voltage is a ground voltage- - after “less than the first supply voltage a Vss voltage”.

***Allowable Subject Matter***

3. Claims 1- 41 are allowed.

4. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, Tateishi (US 6057675) teaches a latch circuit and a comparator. However Tateishi does not teach resetting the voltage ramp signal to the first voltage a first delay after the leading edge of each data pulse; regenerating the voltage ramp signal towards the second voltage a first time period after the resetting of the voltage ramp signal and detecting the voltage value of the voltage ramp signal at the leading edge of each data pulse;

Art Unit: 2611

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Tayong whose telephone number is 571-270-1675. The examiner can normally be reached on Monday-Friday 8:00 am to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Liu Shuwang can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2611

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Helene Tayong

8/4/07



**SHUWANG LIU**  
**SUPERVISORY PATENT EXAMINER**